



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

09/937,587

09/27/2001

Sundar J. Rajan

54676US002

2684

32692 7590 07/21/2008
3M INNOVATIVE PROPERTIES COMPANY
PO BOX 33427
ST. PAUL, MN 55133-3427

EXAMINER

CHEVALIER, ALICIA ANN

ART UNIT

PAPER NUMBER

1794

NOTIFICATION DATE

DELIVERY MODE

07/21/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com
LegalDocketing@mmm.com



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/937,587
Filing Date: September 27, 2001
Appellant(s): RAJAN ET AL.

Carolyn A. Fischer
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed August 23, 2007 appealing from the Office action mailed September 7, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

| | | |
|-----------|------------------|---------|
| 5,670,096 | LU | 09-1997 |
| 5,508,105 | ORENSTEEN et al. | 04-1996 |

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1-4, 7-19 and 37 rejected under 35 U.S.C. 103(a) as being unpatentable over Orensteen et al. (U.S. Patent No. 5,508,105) in view of Lu (U.S. Patent No. 5,670,096).

Orensteen discloses a signage article comprising a retroreflective core sheeting material with a surface binder layer of polyvinyl butyral or synthetic polyester (substrate comprising a noncellulosic organic polymeric surface) [col. 11, lines 3-24], a cured multi-function layer (a radiation cured coating disposed on the noncellulosic polymeric surface) [col. 11, line 63 to col. 12, line 7], and indicia formed from resin based colorant/binder (a marking material disposed on the radiation cured coating). See column 14, lines 31-48 and figure 3. The cured multi-function layer comprises an aliphatic acrylated urethane (e-beam/uv-curable composition) [col. 10, lines 14-49]. Furthermore, Orensteen does not disclose the need or use of a protective coating over the marking material [figure 3]. The signage article has use in validation stickers [col. 1, lines 51-57].

Orensteen fails to disclose tat the signage article is a radiation cured coating.

Lu discloses a signage article (*retroreflective article, title*) comprising a substrate (*array microlenses, col. 5, line 25 and figure 2*) comprising a noncellulosic organic polymer surface (*col. 9, lines 20-34*), a radiation cured coating (*spacing layer, col. 5, line 25 and figure 2*) cross linked by exposure radiation selected from the group consisting of ultraviolet radiation, visible radiation, electron beam radiation, and combinations thereof disposed on the noncellulosic organic polymeric surface (*col. 7, lines 53-66 and claim 2*) and a marking material (*ink, col. 5, lines 39-40*) disposed on the radiation cured coating (*figure 2*). The radiation cured coating is deemed to be an exposed surface, since it is exposed to the marking (*figure 2*).

In the instant case, Lu does not explicitly teach the properties wherein the marking material is not substantially removed from the signage article upon wiping the marking material with gasoline for five cycles, ten cycles, or twenty cycles, upon abrading the marking material for 1000 scrub cycles, or upon applying a pressure sensitive adhesive-coated tape to the marking material under thumb pressure and removing it. Also, Lu does not explicitly teach the properties wherein the radiation cured coating is not substantially removed from the signage article upon wiping the marking material with gasoline for five cycles, upon abrading the marking material for 1000 scrub cycles, or upon applying a pressure sensitive adhesive-coated tape to the marking material under thumb pressure and removing it.

However, it has been held that where claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation has been established and the burden of proof is shifted to Appellant to show that prior art products do not necessarily or inherently

Art Unit: 1700

possess characteristics of claimed products where the rejection is based on inherency under 35 USC 102. Therefore, the *prime facie* case can be rebutted by **evidence** showing that the prior art products do not necessarily possess the characteristics of the claimed product. MPEP 2112.01.

Therefore, in addition to the above disclosed limitations, the presently claimed properties would have inherently been present because Lu discloses the same materials used for the radiation cured coating (*i.e. acrylates, col. 9, lines 11-19*) and the marking material (*ink, col. 5, lines 39-40*). MPEP 2112.01

The substrate comprises a noncellulosic organic polymeric surface comprising a retroreflective sheeting (*col. 7, lines 41-66*).

The retroreflective sheeting is deemed to be part of a validation sticker, since the retroreflective sheet, i.e. base sheet, is adhesively adhered to the surface of a document (*col. 5, lines 42-44*).

The marking material may comprise a second ink formulations comprising a colorant and a binder and the binder comprises a polymer selected from the group of a polyester, a vinyl, a polyolefin, a polyvinyl acetal, an alkyl or aryl substituted acrylate or methacrylate, a copolymer of ethylene or propylene with acrylic acid, methacrylic acid, or vinyl acetate, and combinations thereof (*col. 13, lines 1-6*).

The uv-curable composition comprises an acrylate (*col. 9, lines 11-19*).

The limitation “radiation cured coating is pattern coated” is a method limitation and does not determine the patentability of the product, unless the process produces unexpected results. The method of forming the product is not germane to the issue of patentability of the product itself, unless Appellant presents evidence from which the Examiner could reasonably conclude

Art Unit: 1700

that the claimed product differs in kind from those of the prior art. MPEP 2113. Furthermore, there does not appear to be a difference between the prior art structure and the structure resulting from the claimed method because Lu discloses a radiation cured coating on a substrate.

The signage articles does not include a protective coating over the material (*figure 2*).

The signage article is a product authentication article (*col. 2, lines 40-41*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use Lu's uv-curable composition as the composition of the surface layer in Orenstten in order to improve the retroreflective luster.

(10) Response to Argument

2. Appellant's arguments in the Appeal Brief, filed August 23, 2007, regarding the previous rejection of record have been carefully considered but are deemed unpersuasive.

Appellant argues that there is no suggestion or motivation in the references to modify or combine the teachings. Applicant argues that Orensteen is directed to polymeric sheeting directly thermally printed on and since Lu does not teach or suggest that the spacing layer can be thermally printed upon, there is no motivation to replace the multi-function layer of Orensteen with the spacing layer of Lu,

The Examiner respectfully disagrees. Orensteen and Lu are both directed to retroreflective articles with markings/indicia. Orensteen discloses that the multi-function layer with indicia, may contain a cross-linker (*col. 9, line 12-15*) and comprise an acrylic/acrylate emulsion (*col. 10, lines 32*). Lu discloses a spacing layer with ink/printing, comprising a cured acrylate (*col. 7, lines 65-67 and col. 9, lines 10-15*). Therefore, since both Orensteen and Lu are

Art Unit: 1700

trying to solve a similar problem, e.g. adhering ink to an acrylate, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Lu's uv-curable composition as the composition of the surface layer in Orenstten in order to improve the retroreflective luster.

Appellant argues that the invention requires "a surface exposed to the outdoors comprising a radiation cured coating" and that while Orensteen's multi-function surface layer is exposed to the outdoors it does not comprise a radiation cured coating. Also, Lu's spacing layer while it comprises a radiation cured composition, the spacing layer is not exposed to the outdoors.

In response to Appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. Appellant's arguments regarding the ability to combine references have already been addressed above.

Appellant further argues that the independent claims also recite "a marking material disposed on the radiation cured coating, wherein the marking material is not substantially removed from the signage article upon wiping the marking material with gasoline for five cycles" which is not taught by the references. Appellant further states that the only combination of radiation cured compositions and marking material are in Lu.

Again, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. The combination of Lu and Orensteen do not explicitly disclose the limitation "wherein the marking material is not substantially removed from the signage article upon wiping the marking material with gasoline for five cycles." However, it has been held that where the claimed and prior art products are identical or

Art Unit: 1700

substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation has been established and the burden of proof is shifted to Appellant to show that prior art products do not necessarily or inherently possess characteristics of claimed products where the rejection is based on inherency under 35 USC 102. Therefore, the *prime facie* case can be rebutted by *evidence* showing that the prior art products do not necessarily possess the characteristics of the claimed product. MPEP 2112.01. In the instant case, the combination of Orensteen and Lu discloses a radiation cured acrylate exposed to the outdoors with a marking material disposed on the radiation cured coating. Therefore, since the structure and the composition of the combination of Orensteen and Lu are the same as claimed in the instant claimed invention it would be inherent the marking material is not substantially removed from the signage article upon wiping the marking material with gasoline for five cycles.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Alicia Chevalier/
Primary Examiner, Art Unit 1794

Art Unit: 1700

Conferees:

Rena Dye

/Rena L. Dye/

Supervisory Patent Examiner, Art Unit 1794

/Gregory L Mills/

Supervisory Patent Examiner, Art Unit 1700